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09/780,375	02/12/2001	Christoph Hauger	00014	7035

7590

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EXAMINER

FINEMAN, LEE A

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/780,375

Applicant(s)

HAUGER ET AL.

Examiner

Lee Fineman

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 10 March 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to an amendment filed 10 March 2003 in paper number 13 in which claim 12 was amended, claim 13 was added and claim 10 was cancelled. Claims 1-9 and 11-13 are pending.

#### ***Drawings***

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 10 March 2003 has been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 includes the limitation "wherein the brightness of said image display unit is increased by providing a time-dependent sequential illumination of said reflection display with only a single color." Brightness being "increased" is a relative term and there is no reference level of brightness defined.

*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Zonneveld, U.S. Patent No. 5,889,611.

Regarding claim 5, Zonneveld discloses a surgical microscope (fig. 1) with a viewing unit (3) for viewing an object (20) and defining a viewing beam path (fig. 1); an image projection module (33) for inputting image data into the viewing unit (column 6, lines 6-16), including an image display unit (34 and 35) for displaying the image data; an image recording module (40 and 41) for recording an image of said object supplied by said viewing unit (column 6, lines 43-56) including an image sensor (40) mounted to receive said image data from said image projection module; an image recording beam splitter (37 and 38, column 6, lines 32-65) mounted in said viewing beam path for directing said image of the object onto said image sensor (fig. 1); and a recording device (41) connected to said image sensor for recording said image data and said image of said object.

Regarding claim 7, Zonneveld further discloses wherein said recording device includes an image mixer (in so far as the images are mixed on the image sensor in the camera) for mixing image data and said image of said object.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zonneveld.

Zonneveld discloses the claimed invention except for an optical device mounted in said viewing beam path for providing an image of said object to a location outside of said viewing beam path, the image recording beam splitter mounted outside of said viewing beam path for directing said image of the object onto said image sensor and wherein said image projection module is disposed in said viewing beam path between said image recording beam splitter and said object. Official Notice is taken that beam splitters are well known in the art for redirecting portions of light into different beam paths. It would have been obvious to one of ordinary skill in the art at the time the invention was made to insert a beam splitter as the optical device into the viewing beam path to provide a image of the object to a location outside of said viewing beam path in order for another viewer to see the object. Further it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert beam splitter (making it the image recording beam splitter) outside the viewing path in order for another viewer to see the combined image that will be received by the image sensor. Therefore the image projection module is disposed in said viewing beam path between the image recording beam splitter and the object.

8. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zonneveld in view of Lytle, U.S. Patent No. 4,240,701.

Regarding claims 1 and 4, Zonneveld is silent as to the imaging optics for projecting the image, specifically said image projection module including a first and second plano-convex lens, a plano-concave lens, and a concave-convex lens, mounted downstream of said image display unit and being arranged between said image display unit and said beam splitter. Lytle teaches a projection lens assembly (fig. 1) with a first (12) and second (13) plano-convex lens, a plano-concave lens (14), and a concave-convex lens (15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the projection lens assembly of Lytle in the system of Zonneveld to provide a simple projection assembly and save money by using inexpensive plastic lenses (column 1, lines 28-35).

Regarding claim 2, Zonneveld in view of Lytle discloses the claimed invention except for the ratio of said first focal length and said second focal length being within a range from 1.9 to 2.5. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have focal lengths within the claimed ratio, since it is been held that discovering an optimum value of a result effective variable involves only routine skill in the art. One would have been motivated to adjust the focal lengths for the purpose of adjusting the size/magnification of the projected image. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

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Regarding claim 3, Zonneveld further discloses wherein said viewing unit defines a viewing beam path (fig. 1); and said image projection module includes a beam splitter (37 and 38, column 6, lines 32-65) mounted in said viewing beam path.

9. Claims 8-9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zonneveld in view of Ernstoff et al., U.S. Patent No. 4,090,219.

Regarding claim 8, Zonneveld discloses the claimed invention except the image display unit including a reflection display driven at a clock frequency and illuminated sequentially with different colors as a function of time. Ernstoff et al. teaches in fig. 8, a reflection display (310, column 2, lines 57-58) driven at a clock frequency (column 8, lines 65-66) and illuminated sequentially with different colors as a function of time (column 8, lines 51-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the reflection display of Ernstoff et al. as the display means in the system of Zonneveld to make the system more compact.

Regarding claim 9, Zonneveld in view of Ernstoff et al. further disclose wherein said image display unit includes a rotatably mounted filter wheel (302; Ernstoff) for illuminating said reflection display (fig. 8; Ernstoff); and a device for synchronizing the rotation of said filter wheel to said clock frequency of said reflection display (322 and 306; Ernstoff).

Regarding claim 13, Zonneveld in view of Ernstoff et al. further disclose a time-dependent sequential illumination with only a single color (in so far as the wheel can be stopped on a single color). The examiner questions why a filter wheel is used for single color exposure

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versus a stationary filter as a filter wheel with all the same colors is more complicated and uses more energy.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zonneveld in view of Lytle, as applied to claim 1 above, and further in view of Ernstoff.

Zonneveld in view of Lytle, as applied to claim 1 above, discloses the claimed invention except the image display unit including a reflection display and wherein the brightness of said image display is increased by providing a time-dependent sequential illumination of the reflection display with only a single color. Ernstoff et al. teaches in fig. 8, a reflection display (310, column 2, lines 57-58) illuminated sequentially with a single color as a function of time (in so far as the wheel can be stopped on a single color and, inherently, if more time is spent on a single color, it will be brighter). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the reflection display of Ernstoff et al. as the display means in the system of Zonneveld to be able to project more complicated data/images into the viewing and imaging paths.

#### *Response to Arguments*

11. Applicant's arguments with respect to claim 13 have been considered but are moot in view of the new ground(s) of rejection.

12. After careful review of the claims, it is found that a rejection is appropriate for claims 1-9 and 11. The examiner regrets any inconvenience caused by this action.



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*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (703) 305-5414. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



LAF

May 29, 2003



MARK A. ROBINSON  
PRIMARY EXAMINER